United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Friday, May 30, 2008
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Subject: On-going Time-Critical Removal Activities
Kalamazoo River OU5 - Plainwell Impoundment
Plainwell & Kalamazoo, MI

POLREP No.:	6	**Site #:**	059BBB05
Reporting Period:	2/01/2008 - 05/17/2008	**D.O. #:**	
Start Date:		**Response Authority:**	CERCLA
Mob Date:		**Response Type:**	Time-Critical
Completion Date:		**NPL Status:**	NPL
CERCLIS ID #:		**Incident Category:**	Removal Action
RCRIS ID #:		**Contract #**	

Site Description
See Pollution Report #1.

Current Activities
During the week ending March 22, 2008, Arcadis collected six water samples from the wastewater treatment system located at Staging Area 3S (W_SA3S_Influ_0040, W_SA3S_MidA_0036, W_SA3S_MidB_0040, W_SA3S_EffluA_0036, W_SA3S_EffluB_0040, and W_SA3S_Dup_0009). The analytical results for the effluent water treatment samples indicated PCB levels below the cleanup criteria for water. Arcadis did not conduct turbidity monitoring during the week.

Terra began placing articulated and cabled concrete pads downstream of the water control structure for the purpose of erosion control; continued to drive poles into the river bed (located immediately upstream of Coffer Dam Area 1) that will serve as anchoring points for the Area 13B silt curtain; continued to cut, stage, and dispose of the logs located near Staging Area 3S; recycled the scrap metal from the powerhouse demolition; and laid a □lifeline□ cable across the Kalamazoo River that will serve as a rescue line for any personnel that fall into the river. Terra shipped a total of 21 loads (209.21 tons) of tree stumps and non-TSCA-level sediment to the Ottawa Farms Landfill in Coopersville, MI.

During the week ending March 29, 2008, Arcadis collected fifteen water samples from the wastewater treatment system located at Staging Area 3S (W_SA3S_Influ_0041 to W_SA3S_Influ_0043, W_SA3S_MidA_0037 to W_SA3S_MidA_0039, W_SA3S_MidB_0041 to W_SA3S_MidB_0043, W_SA3S_EffluA_0037 to W_SA3S_EffluA_0039, and W_SA3S_EffluB_0041 to W_SA3S_EffluB_0043), and two water samples from the Kalamazoo River (TS30000 and TS30001). The analytical results for the effluent water treatment samples and the river water samples indicated PCB levels below the cleanup criteria for water.

Arcadis also took turbidity readings from three locations in the Kalamazoo River (one upstream and two downstream of the Area 13B excavation). All downstream readings were less than twice the upstream measurement.

Terra completed placing the articulated and cabled concrete pads downstream of the water control structure for the purpose of erosion control; built and placed additional gabion baskets, as well as jersey barriers, downstream of the water control structure; completed the installation of a turbidity curtain along the perimeter of Area 13B; began excavating sediment from Area 13B; began pugging the excavated sediment at Staging Area 5S; and assembled and deployed the motorized barge into the section of the river where Terra will lay a turbidity curtain for Area 9B. Terra also shipped a total of 8 loads (104.26 tons) of tree stumps and non-TSCA-level sediment to the Ottawa Farms Landfill in Coopersville, MI.
During the week ending April 5, 2008, Arcadis collected eleven water samples from the wastewater treatment system located at Staging Area 3S (W_SA3S_Influ_0044 and W_SA3S_Influ_0045, W_SA3S_MidA_0040 and W_SA3S_MidA_0041, W_SA3S_MidB_0044 and W_SA3S_MidB_0045, W_SA3S_EffluA_0040 and W_SA3S_EffluA_0041, W_SA3S_EffluB_0044 and W_SA3S_EffluB_0045, and W_SA3S_Dup_0010); four water samples from the Kalamazoo River (TS30003, TS30004, TS30005, and TS30006), and two sediment samples from Area 13B (TS20000 and TS20001). Arcadis split TS20000 with START (Note: The START-designated name for the sample is APS-040408-14-SD/TS20000). The analytical results for the effluent water treatment samples, the river samples, and the sediment samples indicated PCB levels below the cleanup criteria for sediment and water.

Arcadis also continued taking turbidity readings from three locations in the Kalamazoo River (one upstream and two downstream of the excavation areas). All downstream readings were less than twice the upstream measurement.

Terra completed the removal of near-shore sediments from area 13B and the installation of sheet pilings and turbidity curtains in Area 9B. Terra also continued to build Staging Area 4N by grading the surface of the area and then laying a fabric and HDPE liner in the area. Terra also placed river run rock immediately downriver of the water control structure for erosion control along the south bank. Terra transported nine loads (106.13 tons) of tree stumps and non-TSCA-level sediment to the Ottawa Farms Landfill in Coopersville, MI.

During the week ending April 12, 2008, Arcadis collected fifteen water samples from the

water treatment system located at Staging Area 3S (W_SA3S_Influ_0046 to W_SA3S_Influ_0048, W_SA3S_MidA_0042 to W_SA3S_MidA_0044, W_SA3S_MidB_0046 to W_SA3S_MidB_0048, W_SA3S_EffluA_0042 to W_SA3S_EffluA_0044, and W_SA3S_EffluB_0046 to W_SA3S_EffluB_0048); and two water samples from the Kalamazoo River (TS30007 and TS30008). The analytical results for the water treatment and surface water samples indicated PCB levels below the cleanup criteria for water.

Arcadis also continued taking turbidity readings from three locations in the Kalamazoo River (one upstream and two downstream of the excavation areas). All downstream readings were less than twice the upstream measurement.

Terra began excavating sediment from Area 9B; and began pulling stumps from the shoreline directly across from Area 9B (following the deployment of a turbidity curtain along the shoreline of the area in which Terra pulled the stumps). Terra also continued to build Staging Area 4N by laying gravel over the liner of the staging area and delivering pugmill components to this staging area, and placed river run rock along the shoreline of Area 13B. Terra shipped 14 loads of non-TSCA-level sediment (679.81 tons) to the Ottawa Farms Landfill in Coopersville, MI.

During the week ending April 19, 2008, Arcadis collected eleven water samples from the water treatment system located at Staging Area 3S (W_SA3S_Influ_0049 and W_SA3S_Influ_0050, W_SA3S_MidA_0045 and W_SA3S_MidA_0046, W_SA3S_MidB_0049 and W_SA3S_MidB_0050, W_SA3S_EffluA_0045 and W_SA3S_EffluA_0046, W_SA3S_EffluB_0049 and W_SA3S_EffluB_0050, and W_SA3S_Dup_0011); and two water samples from the Kalamazoo River (TS30010 and TS30011). The analytical results for these water treatment and surface water samples indicated PCB levels below the cleanup criteria for water.

Arcadis also continued taking turbidity readings from three locations in the Kalamazoo River (one upstream and two downstream of the excavation areas). All downstream turbidity readings were less than twice the upstream turbidity reading.

Terra continued the construction of Staging Area 4N and the initial assembly of the 4N pugmill and automatic tire wash. Terra also continued the excavation of sediment from Area 9B; completed the loading and hauling of the Plainwell dam earthen berm sand to the landfill; and initiated and completed the pouring of concrete between the seams of the erosion control structures located immediately downstream of the water control structure. Terra shipped 70 loads of non-TSCA-level sediment (3,320.02 tons) to the Ottawa Farms Landfill in Coopersville, MI.

During the week ending April 26, 2008, Arcadis collected six water samples from the water treatment system located at Staging Area 3S (W_SA3S_Influ_0051 and W_SA3S_Influ_0052, W_SA3S_MidA_0047, W_SA3S_MidB_0051, W_SA3S_EffluA_0047, and W_SA3S_EffluB_0051); fifteen sediment samples from Area 9B (TS20002 to TS20016); and two water samples from the Kalamazoo River (TS30013 and

TS30014). The analytical results for the effluent water treatment samples, and the sediment and river samples indicated PCB levels below the cleanup criteria for sediment and water.

Arcadis also continued taking turbidity readings from three locations in the Kalamazoo River. All downstream turbidity readings were less than twice the upstream turbidity reading.

Terra continued to load and haul sediment from Staging Area 3S to the landfill; began excavating sediment from Area 10B; began assembling a barge, near Area 9B, that Terra will use as a staging platform for the crane when the crane installs or pulls sheet pilings; continued to build the pugmill at Staging Area 4N; shipped the sand, that made of the Plainwell Dam staging pad, to the landfill; began pumping water into Coffer Dam Area 1 in order to equalize the water level inside the area with the rest of the river; placed erosion control matting on the upper west bank of Coffer Dam Area 1; began and completed the placement of topsoil and an erosion control mat over the 3-to-1 slope of Area 9B; and began to pull the upstream sheet pilings for Area 9A. Terra shipped 78 total loads of non-TSCA-level sediment (3,585.74 tons) to the Ottawa Farms Landfill in Coopersville, MI and the C & C Landfill, in Marshall, MI.

King Company mobilized a crane to the site that it will use to pull the Coffer Dam Area 1 sheet piling out of the river.

The company Great Lakes Diving Company, of Battle Creek, MI, mobilized to the site, on April 25, 2008, in order to locate the gas pipelines that run across the river immediately downstream of Area 10B.

During the week ending May 3, 2008, Arcadis collected seven sediment samples from Area 10B (TS20017 to TS20023) and two river samples from the Kalamazoo River (TS30016 and TS30017). Arcadis split TS20017 with START (Note: The START-designated name for the sample is APS-042808-20-SD/TS20017). The analytical results for the sediment and river samples indicated PCB levels below the cleanup criteria for sediment and water.

Arcadis also continued taking turbidity readings from three locations in the Kalamazoo River (one upstream and two downstream of the excavation areas). All downstream turbidity readings were less than twice the upstream turbidity reading.

Terra began excavating sediment from Area 10B1 (an upland portion of Area 10B); continued hauling sediment from Staging Area 3S; began grubbing Area 9A and installing turbidity curtain poles in the river and along the length of Area 9A; continued to construct/assemble the pugmill, truck lining scaffold, automatic tire wash, and water treatment system located at Staging Area 4N; loaded sediment previously staged at Staging Area 5S into dumptrucks for disposal at the landfill; and began excavating sediment from Area 9A. Terra shipped 92 total loads of non-TSCA-level sediment (4,285.18 tons) to the Ottawa Farms Landfill in Coopersville, MI and the C & C Landfill, in Marshall, MI.

King Company began pulling Coffer Dam Area 1 sheet pilings from the river.

During the week ending May 10, 2008, Arcadis collected one sediment sample from Area 9B (TS20042); twelve sediment samples from Area 10B (TS20039 to TS20041 and TS20043 to TS20051); six sediment samples from Area 10B1 (TS20033 to TS20038); nine sediment samples from Area 9A (TS20024 to TS20032); six water treatment samples from the water treatment system located at Staging Area 3S (W_SA3S_Influ_0053, W_SA3S_MidA_0048, W_SA3S_MidB_0052, W_SA3S_EffluA_0048, W_SA3S_EffluB_0052, and W_SA3S_Dup_0012); and four water samples from the Kalamazoo River (TS30019 to TS30022). Arcadis split TS20028 and TS20044 with START (Note: The START-designated names for these sample are APS-050508-21-SD/TS20028 and APS-050808-22-SD/TS20044). The analytical results for the effluent water treatment samples, and the sediment and river samples indicated PCB levels below the cleanup criteria for sediment and water.

Arcadis also continued taking turbidity readings from three locations in the Kalamazoo River. All downstream turbidity readings were less than twice the upstream turbidity reading.

During the week ending May 17, 2008, Arcadis collected eight sediment samples from Area 9A (TS20052 to TS20059); three water samples from the Kalamazoo River (TS30024 to TS30026); and five water samples from the water treatment system located at Staging Area 4N (W_SA4N_Influ_0001, W_SA4N_MidA_0001, W_SA4N_MidB_0001, W_SA4N_EffluA_0001, and W_SA4N_EffluB_0001). Arcadis split TS20052 with START (Note: The START-designated name for the sample is APS-051408-23-SD/TS20052). The analytical results for the effluent water treatment samples, and the sediment and river samples indicated PCB levels below the cleanup criteria for sediment and water.

Arcadis also continued taking turbidity readings from three locations in the Kalamazoo River. All downstream turbidity readings were less than twice the upstream turbidity reading.

Terra continued to excavate sediments from the floodplain sections of 11A to 13A, as well as excavated sediment from Area 9A and 10A; removed the poles that held the Area 10B turbidity curtain in place; backfilled Area 10B1; staged and loaded sediment at Staging Area 4N; began treating water at Staging Area 4N; and began to grub the trees and vegetation in Area 11B. Terra shipped 120 total loads of non-TSCA-level sediment (5.620.33 tons) to the Ottawa Farms Landfill in Coopersville, MI and the C & C Landfill, in Marshall, MI.

JFNew restored Area 6B and Area 6B1 by laying straw and planting shrubs and trees. JFNew was also on site during the weeks ending May 3 and 10, 2008, at which time they restored Areas 1 to 5A and Areas 3B and 4B.

Planned Removal Actions

See Pollution Report #1.

Next Steps

Stop logs will continue to be removed from the Water Control Structure. During the week of May 26, it is expected that the Water Control Structure will be at an elevation below the Plainwell Dam spillway elevation and water will begin flowing through the historical channel. Complete the removal of TSCA-level sediment from the Area 10B1; as well as the sediment from Mid-Channels A, B, and C; complete the removal of sediment from Areas 10A, 11A, 11B, 12A, and 13A; begin and complete the restoration of the Areas 10A, 10B1, 11A, 11B, 12A and 13A and Mid-Channels A, B, and C.

Key Issues

U.S. EPA and the Michigan Department of Environmental Quality have recently inspected Area 11B with an ARCADIS representative and determined that access into this area is possible to conduct removal activities. This area was previously thought to be inaccessible and was not included in the Work Plan. U.S. EPA required the KRSG to modify the Work Plan to incorporate Area 11B into the TCRA.

The progress of site activities based on weather conditions and the extent of PCB contamination, and the impact of public opinion on the site activities.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
RST/START	$427,000.00	$188,765.00	$238,235.00	55.79%
Intramural Costs				
Total Site Costs	$427,000.00	$188,765.00	$238,235.00	55.79%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

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